



SEQUENCE LISTING

<110> Phagetech, Inc.  
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<120> DNA SEQUENCES FROM STAPHYLOCOCCUS AUREUS BACTERIOPHAGE 44 AHJD  
THAT ENCODE ANTI-MICROBIAL POLYPEPTIDES

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<140> 09/727,892

<141> 2000-12-01

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<170> PatentIn version 3.0

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agataagttg gttaagttgt tgcacagtat ttttaagttt agtaaagaaa tgataagtaa16620  
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<210> 2  
<211> 2286  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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017.176341.1

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atgaaagcat ttccagagca agcgaaagac ttathtagag gttggtaaa cgacggtacg 300  
attgacagta ttattcatga cgagttaaa aaatatagcg caggattaac atcggcattt 360  
gctttattta aagttactga aatgaaacaa atgaatgact ttaaatcaga agttaaagac 420  
ttaattaaag atattgaccg tttcgtaat gggttgaat taaatgagct tgaaccaaag 480  
tttgtgatgg gctttggtgg tattcgcaac gcagttacc aatctattaa tattgataaa 540  
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ggtacaacaa tcggattaga acgtcaatcc aatggtgaaa tgaaaatctg gttacatcac 720  
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ttacgtgtgt caagtggtaa cgcagtcggt gaagtaagac aaacattaga ggctaatata 1860  
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<211> 1764  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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aaatcgtagt actattcaaa acaaccgtat aatttatac gtgatagaat ggaaatcaat 180  
gttgatatgc agtggcatga cgcacaaggt attaactaca tgacgtttt atcagatttt 240  
gaggatagaa gatattacgc tttgtaaac caaatcgaat acgtgaatga cgttgtggtt 300  
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ctctcaaacg tcaatattga acgtcaacat ttatcaaaac gcacgtataa ctatatgtta 420  
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caaatgcaac aatatttgaa aaatttagta ttattccagt caagcgctga tttatcaaag 540  
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<210> 5  
<211> 1464  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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tatggcgct ttaatgtatg gcttgggtgtt aatgaaagta aaatcagaca agtattaaaa 180  
gcagtaaaag agataggtgtt ttcacctact cttttgccc tatatgaaaa aaatgagggt 240  
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gctaaattca tagcaagaaa gtttagtatca caatcaaaac aagctggaca accgtcttgg 360  
tatgacgcag gtaacatcgt ccactttgtt ccacaagacg tacaaagaaa aggttatgca 420  
gattttgcaaa aaaatatgaa agcaggtaca attggacgtg catatattcc attaacagca 480  
gctgctactt gggcggcata ttatccttta ggtttgaaag catcatataa caaagtacaa 540  
aactatggta atccatttt agacggtgcg aatactattc tagcttgggg tggtaaattt 600

gacggtaaag gtggatcacc tagtgattcg tctgacagtg gtagtagtgg tgacagtgg 660  
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gcattacaat gggacgttca tagtattggt agtgataaat ttttagtaa tgattatttt 780  
acattagaaa aaacatttaa caacacatcatat catattaaaa tgacgattgg tttacttgat 840  
tcattaaaaa aactgattga tagcggttcaa gtagatagtggagtagtag ttctaattcct 900  
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<210> 6  
<211> 1248  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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gatatagatt attatataatc tatttcaaac cgttctgatg gaaaatcggtt caactatgtt 180
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tatacattac gtgacgctt ccgtgatttt attgaagaaaa tcatacatgtaa aaatccacta 300
tttaaatcaa aacgtgtcac gttcagaagt gctagggact atttagctat tatctatcaa 360
qataaaagaaa ttgggtgtqat tacagatttq aataqgtgccaa ctqatttaaa atatcattct 420
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aacttttaa aacactatcc tattattata tatgatgagt ttttagcact tgaagatgat 480  
tatttaattg atgagtggga taagttaaaa acaatatatg aatcaatcga ccgtaaccat 540  
ggtaacgttg attatattgg attccctaaa atgttttac tagtaatgc agtcaactt 600  
tcaagtccta tattatccaa tttaaatata tacaatttat tacaaaagca taaaatgaat 660  
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aaacgtaca cacgtgcgtt taattcaat gacgacgcta tgacaactgg agaatttcaa 780  
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cgtttattact acaatccaag caatttacat tttgacaatg cttactctaa aaattacgtg 1080  
gttgataatg atagatattt atatttagat atgaataaaaa ttataaaatt tcatataaaaa 1140  
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<210> 7  
<211> 1227  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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aattcaaata caatgttcga aacatttgc aataaatatt tattccctaa gattaatgag 180  
actttattaa tcgatattgc attaggtat cgtttaatt ggttagctaa agagcaagat 240  
tttattggac aatatagtga agaatacgtg attatggaca cagtcacaaat taacatggac 300  
ttatctaaaa atgaggaatt aatgttgaaa cgtaatttac cacgtatggc aactaagtt 360  
tatggtaacg gaatttgaa gaaacaaaaa ttcacattaa acaacaatga tacacgttcc 420  
aatttccaaa cattagcaga cgcaactaat tacgctttag gtgtatacaa aaagaaaaatt 480  
tctgatatta atgtattttaga agaaaaagaa atgcgtgcaa tggtagttga ttactcattt 540

aatcaattat ccgaaacaaa tgtacgtaaa gcaacatcaa aagaagattt agcaagcaaa 600  
gttttgaag caatcctaaa cttacaaaac aacagtgcta aatataatga agtacatcgt 660  
gcatcaggtg gtgcaattgg acaatataca actgtatcaa aattaaaaga tattgtgatt 720  
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tatgcgttta ttttgatataattcaatt aaatataaaac gttacacaaa aggtatgtt 1080  
aaaccaccat tccataaccc tgaatttgat gaagttacac actggattca ttactattca 1140  
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<210> 8  
<211> 984  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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ctactaatca actataccaa tcgtgatacg gttggtagatg attttattca gttagaatca 180  
gcttaagac aaaacattaa ttagttgtt ggtgaagcta gaaataagca aattatgatt 240  
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gttgcatacg aaaataaacc aattcaatat aatagtgata tagaaattat agaacattat 480  
actgatgaat tagcagaagt tgcttatct cgctttctt taatcatgca agcaaaattt 540  
agcaagatat ttaaatcaga aattaatgac gagtcaatca atcaacttgt gtccgaaata 600

tataacggtg caccatttgtaaaaatgtca cctatgttta atgcagatga cgatatcatt 660  
gatttaacaa gtaatagcgt aatcccagca ttaactgaaa tgaaacggga atatcaaaac 720  
aaaatttagt aattaagtaa ctattdaggc attaattcat tagccgttga taaagaaaagc 780  
ggtgtttcag acgaagaggc aaaaagtaat cgtggattta ccacatcaaa cagtaatatc 840  
tatttaaaag gtcgtgaacc aattacgtt ttatcaaagc gttatggttt agatattaaa 900  
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<210> 9  
<211> 756  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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caaaaaatgc tgaagttcga caaagacgtt ttagctatcg ttaatgaaaa agtattttaa 180  
ggttttcat tgaaagatga attatcgat ttactttta aaaaatcatt tacgattcat 240  
tttttagata gagaaatcaa cagacaaaca gttgaagcat ttggcatgca agtgattact 300  
gtatgttata cacatgagga ttatttaat gtggtttatt catcaagtga agttgaaaaa 360  
tacttacaat cacaaggctt cacagaacac aatgaagata caacaagtaa cactgatgaa 420  
acatcgaatc aaaatgctac atcttagac aattcaactg gcatgactgc aaacagaaac 480  
gcttatgtgt cattaccaca aagtgaggtt aacattgatg ttgataatac aacgttacga 540  
ttcgctgata ataatacgat tgataacggt aaaactgtga ataaatcgag taacgaaagt 600  
aatcaaaacg caaaacgtaa tcaaaatcaa aaaggtaatg caaaaggtac acaattcact 660  
aagcagtatt taattgataa tattgataaa gcgtacgatt taagaaagaa aattttaaat 720  
gaatttgata aaaaatgttt tttacaaatt tggtag 756

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1  
2  
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4  
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9

<210> 10  
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<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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actgacggta aagttcgcat gtggggtaat gctaaagacg cgataaataa tgactttaaa 180  
ggtttagcga cgggtgtataa aaatacaccg agctttaaac ctcaattagg ggacgttgct 240  
gtatatacaa atggacaata tggacatatt caatgtgtgt taagtggaaa tcttgattat 300  
tatacatgct tagaacaaaa ctgggttaggc ggcgggtttt acgggtggaa aaaagcaacc 360  
attagaacac attattatga cgggtgtact cacttttatta gacctaaatt ttcaggttagt 420  
aatagcaaag cattagaaac atcaaaagta aatacattt gaaaatggaa acgaaaccaa 480  
tacggcacat attatagaaa tgaaaatggt acatttacat gtgggtttttt accaatattt 540  
gcacgtgtcg gtagtccaaa attatcagaa cctaatggct attgggttcca accaaacggt 600  
tatacaccat ataacgaagt ttgttatca gatgggttacg tatggattgg ttataactgg 660  
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<210> 11  
<211> 483  
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<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 11  
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gatttacaag aggcgtacat tgacacatgg aaacattttt cacatctgcc ctatttcct 180  
aaagaaaagaa acgtatcata tgtaaatgct gtatcattgg taagaggttc aagacataaa 240  
aaatttaaattt atattcttga aatataaaac cgtaatgtatg attctaataa taaaaacgct 300  
aaaaagcata aatacgctt atataattta caagctaaaa ataataattc ttcaatgtat 360  
aaatataattt aagaaaatcga tactttatataa aaagaaaattt gtaaatcaga tagaccagt 420

acaaatattg atgatgaaga tgtgaggtat aacttttat attatgcaac atttgacgaa 480  
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<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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aaagagtata tcgttagagc attattcaca aacaaagaat caaaattcgg tgaacaaggt 180
gttatcgtca ctgatgacta taacgtaaac ttaccgaacc acttaacaga attaattaaa 240
gaaatgagag cagatgagga cgttggtagac attatcaatg ctggagaagt tcaattcaca 300
atttatgaat atgaaaacaa aaaaggtcaa aaaggtaact caatcaattt tggtaagtg 360
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<210> 13  
<211> 423  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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atttcaaaag caattaaaaa taataactta tggtcaaaaa aatcaatgag aggattttct 180
aaaaaaattat tgatattctg tattatcatt ttagcaaaca tcattgacca gattttacaa 240
ttaaaaaggtg gtctactcat gattacaata ttttattata ttgcaaatga gggactttct 300
attgtagaaa attgtgcaga aatggacgta ttagtaccag aacaaattaa agataaaatta 360
agagtcatta aaaatgatac tgaaaagagt gataacaatg aacgatcaag agaagataga 420
taa 423
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<210> 14  
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ataaaatatgg gtgatgtgta tattgagttt gacaaacaat atgatgattt taaaattgaa 180  
aaagagttat ttacgttaga tatcgacatt gatattaaaa aacatgttt taatatactt 240  
gtatttatt atagaaatta ttaagtaat gaattaataa gagaatattt attaaacggtt 300  
acaattgacg acgtatttac aaattttgat aaacctcttg aaagcgaatt aatgatttt 360  
tatcaaaaca aagtcatata cgataatggg aaagtgattt accatgaata a 411

<210> 15  
<211> 279  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 15  
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tttggttatc agatggttac gtatggattt gttataactg gcaaggcaca cgttatttt 180  
taccagtgcg ccaatggaat ggaaaaacag gtaatagtta cagtgttggt attccttggg 240  
gggtgttctc ataatggta ttttagcctt tttctttga 279

<210> 16  
<211> 243  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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tctttttctt caaattcaaa tctcgctaat gtgtttgggt gtcttgataa aatatcttt 180

acgtttgtca	ttttattttct	cctcttattt	aaatttatttgc	ctttctgcaaa	ttgcgatttgc	240
tag						243
<210>	17					
<211>	237					
<212>	DNA					
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caagcaaaag	aatttattacc	agacacatgt	aaactattgt	ccactacacg	cacaacgaaa	180
acaattcaag	tttattacaa	tgatttacta	caaatcgcaaa	ttgcagaaag	caaataaa	237
<210>	18					
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<212>	DNA					
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gtatctataa	tgagcaaggt	acaatatcga	tatatccgtc	taaaactgaa	attgtatgt	180
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<210>	19					
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<212>	DNA					
<213>	Staphylococcus aureus Bacteriophage 44 AHJD					
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ttaatcttag	ggaataaaata	tttatttaca	aatgtttcga	acattgtattt	tgaatttatcc	180
catttgcgc	caaatgtcca	agattttgaa	taa			213

<210> 20  
<211> 207  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

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tttggcttga ctgatttacc actaatttgtt ttatggtctc cgtcatcatc agtaggatta 180  
gaactactac tcccactatc tacttga 207

<210> 21  
<211> 189  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 21  
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tacagtgtta aatttattcg tcaaatgttg cataatataa aaagttatac ctcacatctt 120  
catcatcaat atttgcact ggtctatctg atttaccaat ttctttatataa aaagtatcga 180  
tttctttaa 189

<210> 22  
<211> 183  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 22  
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taa 183

<210> 23  
<211> 144  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 23  
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aacattaata caaataaaaaa gtag 144

<210> 24  
<211> 180  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

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<210> 25  
<211> 177  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 25  
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tcatttaaaa ataaatctt ttcttgctt tttctagctt ctcttcttt tttccatcta 120  
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<210> 26  
<211> 177  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

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catcaaatctt caatgtttga agatttatat gacgctaaag ttgtatattc atattatgaa 120  
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<210> 27  
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<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 27  
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<210> 28  
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<400> 28  
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<210> 29  
<211> 165  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 29  
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ctttcttg tacgtcttgt ggtacaaagt ggacgatgtt acctgcgtca taccaagacg 120  
gttgcagc ttgtttgat tgtgatacta actttcttgc tatga 165

<210> 30  
<211> 165  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 30  
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attatgaata taacctgttc actaaaaat acgcgtatcat 165

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<210> 31  
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aaaaatgcta aaaggaaaac aatggctatg tttaataggt tattcatggt caatcacttt 120  
cccattatcg tatatgactt tgtttgata aataatcatt aa 162

<210> 32  
<211> 153  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

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gcaggtatgc catataatcc atttaaaacg actttagata acataacctc ctcatttgag 120  
tatgggtgtt cggtgatatc atcagtaatg tga 153

<210> 33  
<211> 150  
<212> DNA  
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ttcgcaccgt ctaaaaatgg attaccata 150

<210> 34  
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<212> DNA  
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aattgtgtac ctttgcatt accttttg 150

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aaattggtaa atcagataga ccagtga 147

<210> 36  
<211> 147  
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<210> 37  
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<210> 38  
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<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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<210> 39  
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<210> 42  
<211> 138  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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atattgattc tggtttag 138

<210> 43  
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<212> DNA  
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<210> 44  
<211> 138  
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<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 44  
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aaatthaagtc accactag 138

<210> 45  
<211> 135  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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<210> 46  
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<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

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ttcttatga 129

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<210> 47  
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<212> DNA  
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<210> 48  
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<210> 49  
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<212> DNA  
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cgataa 126

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<210> 51  
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<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 51  
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atata  
atata 126

<210> 52  
<211> 123  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

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taa  
taa 123

<210> 53  
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<212> DNA  
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<400> 53  
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taa  
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<210> 55  
<211> 120  
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<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

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<210> 56  
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<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

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<210> 57  
<211> 114  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 57  
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aaaaagtggg tgcatggta cgtgtgtcaa gtggtaacgc agtcggtgaa gtaa 114

<210> 58  
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<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 58  
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caaataatgc tggtgataat attgtattct tttagtggtat tgcttaatta a 111

<210> 59  
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<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 59  
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atttacctaa ggctatcggg tcgaataaac tggggttcaa taagggttta a 111

<210> 60  
<211> 111  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

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<210> 61  
<211> 111  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

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<210> 62  
<211> 108  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

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<210> 63  
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<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 63  
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<210> 64  
<211> 105  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 64  
atgcgtcttg tattttttt aataattctt gcatggcttg ttttgctaaa gcgagtagtg 60  
aactaccact gtcaccacta ctaccactgt cagacgaatc actag 105

<210> 65  
<211> 102  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 65  
atgacgagtc aatcaatcaa cttgtgtccg aaatatataa cggtgcacca tttgttaaaa 60  
tgtcacctat gtttaatgca gatgacgata tcattgattt aa 102

<210> 66  
<211> 102  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 66  
gtggtgaaaa acgtttccat aatttatatg gtttcttcca acttggtgag tatgaacact 60  
ttgaaggcatt acgcgcaaga ggttcacaaa actataaatt aa 102

<210> 67  
<211> 102  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 67  
atgatattct ttatattgaa agtgacatcg gttcatttc acttaacgac ttattccag 60  
ttgaacgttc agtacataac aatctgatt tgcataatatt aa 102

<210> 68  
<211> 402  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 68  
atgacagaat ttgatgaaat cgtaaaacca gacgacaaag aagaaacttc agaatcaact 60

017.176341.1

gaagaaaatt tagaatcaac tgaagaaact tcagaatcaa ctgaagaatc aactgaagaa 120  
tcaactgaag aatcaactga agataaaaca gtagaaacaa tcgaagaaga aaatgaaaac 180  
aaattagaac ctactacaac agatgaagat agttcgaaat ttgaccctgt tgtattagaa 240  
caacgtattg cttcattaga acaacaagtg actactttt tatcttcaca aatgcaacaa 300  
ccacaacaag tacaacaaac acaatcagat gtaacagaat caaacaaga agataacgac 360  
tattcagatg aagaactagt tgataagttt gattttagattt ag 402

<210> 69  
<211> 303  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 69  
atggtaatg ttgataatgc accagaagaa aaaggacaag cctatactga aatgttgcaa 60  
ctattcaata aactgattca atggaatcca gcttatacat ttgacaatgc aattaactta 120  
ttatcggtt gccaacaact attattaaac tataatagtt ctgttggca attcttaat 180  
gatgaactaa acaacgaaac taaaccagaa tcaatattgt cttatattgc tggtgatgac 240  
ccaatagaac aatggaatat gcataaaagga ttttatgaaa cgtataacgt ttacgtttt 300  
tag 303

<210> 70  
<211> 198  
<212> DNA  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 70  
atggaaaatg aaacaaaaaa cattgagttg aagcatgttt ttcgttttaa gaatggaagt 60  
ttatgtatag cgttatgttga tagaacagaa aatgaaattt catttatgtt tggtgacatt 120  
gatgaaattt aagatttaaa tcataattct gtttacgctg taatttcaac tttattagga 180  
agtgataata atggtaaa 198

<210> 71  
<211> 183  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 71  
atgtatgagg gaaacaacat gcgttctatg atgggtacat catatgaaga ttcaagatta 60  
aataaaacgaa cagaattaaa tgaaaacatg tcaattgata caaataaaag tgaagatagt 120  
tatggtgtac aaattcattc actttcaaaa caatcattt caggtgacgt tgaggagaa 180  
taa 183

<210> 72  
<211> 150  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 72  
atgaaaacat gtcaattgat acaaataaaa gtgaagatag ttatgggtca caaattcatt 60  
cactttcaaa acaatcattt acaggtgacg ttgaggagga ataataaatt atggcacaac 120  
aatctacaaa aaatgaaaact gcacttttag 150

<210> 73  
<211> 132  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 73  
atgattgttt tgaaagtgaa tgaatttgc caccataact atcttcactt ttatggat 60  
caattgacat gtttcattt aattctgttc gtttatttaa tcttgaatct tcataatgt 120  
tacccatcat ag 132

<210> 74  
<211> 111  
<212> DNA  
<213> *Staphylococcus aureus Bacteriophage 44 AHJD*

<400> 74  
atgtttcat ttaattctgt tcgtttattt aatcttgaat cttcatatga tgtacccatc 60  
atagaacgca tggtgttcc ctcatacatg tttaaattcc tcctaattcta a 111

<210> 75  
<211> 761  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 75

Met Gly Leu Leu Glu Cys Met Gln Tyr His Lys His Glu Arg Arg Met  
1 5 10 15

Ile Leu Tyr Trp Asp Ile Glu Thr Leu Ala Tyr Asn Lys Val Asn Gly  
20 25 30

Arg Lys Lys Pro Thr Lys Tyr Lys Asn Val Thr Tyr Ser Val Ala Ile  
35 40 45

Gly Trp Phe Asn Gly Tyr Glu Ile Asp Val Glu Val Phe Pro Ser Phe  
50 55 60

Glu Ser Phe Tyr Asp Ala Phe Tyr Thr Tyr Val Lys Arg Arg Asp Thr  
65 70 75 80

Ile Thr Lys Ser Lys Thr Asp Ile Ile Met Ile Ala His Asn Cys Asn  
85 90 95

Lys Tyr Asp Asn His Phe Leu Leu Lys Asp Thr Met Arg Tyr Phe Asp  
100 105 110

Asn Ile Thr Arg Glu Asn Ile Tyr Leu Lys Ser Ala Glu Glu Asn Glu  
115 120 125

His Thr Leu Lys Met Lys Glu Ala Thr Ile Leu Ala Lys Asn Gln Asn  
130 135 140

Val Ile Leu Glu Lys Arg Val Lys Ser Ser Ile Asn Leu Asp Leu Thr  
145 150 155 160

Met Phe Leu Asn Gly Phe Lys Phe Asn Ile Ile Asp Asn Phe Met Lys  
165 170 175

Thr Asn Thr Ser Ile Ala Thr Leu Gly Lys Lys Leu Leu Asp Gly Gly  
180 185 190

Tyr Leu Thr Glu Ser Gln Leu Lys Thr Asp Phe Asn Tyr Thr Ile Phe  
195 200 205

Asp Lys Asp Asn Asp Met Asn Asp Ser Glu Ala Tyr Asp Tyr Ala Val  
210 215 220

Lys Cys Phe Ala Lys Leu Thr Pro Glu Gln Leu Thr Tyr Ile His Asn  
225 230 235 240

Asp Val Ile Ile Leu Gly Met Cys His Ile His Tyr Ser Asp Ile Phe  
 245 250 255  
 Pro Asn Phe Asp Tyr Asn Lys Leu Thr Phe Ser Leu Asn Ile Met Glu  
 260 265 270  
 Ser Tyr Leu Asn Asn Glu Met Thr Arg Phe Gln Leu Leu Asn Gln Tyr  
 275 280 285  
 Gln Asp Ile Lys Ile Ser Tyr Thr His Tyr His Phe His Asp Met Asn  
 290 295 300  
 Phe Tyr Asp Tyr Ile Lys Ser Phe Tyr Arg Gly Gly Leu Asn Met Tyr  
 305 310 315 320  
 Asn Thr Lys Tyr Ile Asn Lys Leu Ile Asp Glu Pro Cys Phe Ser Ile  
 325 330 335  
 Asp Ile Asn Ser Ser Tyr Pro Tyr Val Met Tyr His Glu Lys Ile Pro  
 340 345 350  
 Thr Trp Leu Tyr Phe Tyr Glu His Tyr Ser Glu Pro Thr Leu Ile Pro  
 355 360 365  
 Thr Phe Leu Asp Asp Asp Asn Tyr Phe Ser Leu Tyr Lys Ile Asp Lys  
 370 375 380  
 Asp Val Phe Asn Asp Asp Leu Leu Ile Lys Ile Lys Ser Arg Val Leu  
 385 390 395 400  
 Arg Gln Met Ile Val Lys Tyr Tyr Asn Asn Asp Asn Asp Tyr Val Asn  
 405 410 415  
 Ile Asn Thr Asn Thr Leu Arg Met Ile Gln Asp Ile Thr Gly Ile Asp  
 420 425 430  
 Cys Met His Ile Arg Val Asn Ser Phe Val Ile Tyr Glu Cys Glu Tyr  
 435 440 445  
 Phe His Ala Arg Asp Ile Ile Phe Gln Asn Tyr Phe Ile Lys Thr Gln  
 450 455 460  
 Gly Lys Leu Lys Asn Lys Ile Asn Met Thr Ser Pro Tyr Asp Tyr His  
 465 470 475 480  
 Ile Thr Asp Asp Ile Asn Glu His Pro Tyr Ser Asn Glu Glu Val Met  
 485 490 495  
 Leu Ser Lys Val Val Leu Asn Gly Leu Tyr Gly Ile Pro Ala Leu Arg  
 500 505 510

Ser His Phe Asn Leu Phe Arg Leu Asp Asp Asn Asn Glu Leu Tyr Asn  
 515 520 525

Ile Ile Asn Gly Tyr Lys Asn Thr Glu Arg Asn Ile Leu Phe Ser Thr  
 530 535 540

Phe Val Thr Ser Arg Ser Leu Tyr Asn Leu Leu Val Pro Phe Gln Tyr  
 545 550 555 560

Leu Thr Glu Ser Glu Ile Asp Asp Asn Phe Ile Tyr Cys Asp Thr Asp  
 565 570 575

Ser Leu Tyr Met Lys Ser Val Val Lys Pro Leu Leu Asn Pro Ser Leu  
 580 585 590

Phe Asp Pro Ile Ala Leu Gly Lys Trp Asp Ile Glu Asn Glu Gln Ile  
 595 600 605

Asp Lys Met Phe Val Leu Asn His Lys Lys Tyr Ala Tyr Glu Val Asn  
 610 615 620

Gly Lys Ile Lys Ile Ala Ser Ala Gly Ile Pro Lys Asn Ala Phe Asp  
 625 630 635 640

Thr Ser Val Asp Phe Glu Thr Phe Val Arg Glu Gln Phe Phe Asp Gly  
 645 650 655

Ala Ile Ile Glu Asn Asn Lys Ser Ile Tyr Asn Glu Gln Gly Thr Ile  
 660 665 670

Ser Ile Tyr Pro Ser Lys Thr Glu Ile Val Cys Gly Asn Val Tyr Asp  
 675 680 685

Glu Tyr Phe Thr Asp Glu Leu Asn Met Lys Arg Glu Phe Ile Leu Lys  
 690 695 700

Asp Ala Arg Glu Asn Phe Asp His Ser Gln Phe Asp Asp Ile Leu Tyr  
 705 710 715 720

Ile Glu Ser Asp Ile Gly Ser Phe Ser Leu Asn Asp Leu Phe Pro Val  
 725 730 735

Glu Arg Ser Val His Asn Lys Ser Asp Leu His Ile Leu Lys Arg Glu  
 740 745 750

His Asp Glu Ile Lys Lys Gly Asn Cys  
 755 760

<210> 76  
<211> 647  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 76

Met Ala Tyr Asn Glu Asn Asp Phe Lys Tyr Phe Asp Asp Ile Arg Pro  
1 5 10 15

Phe Leu Asp Glu Ile Tyr Lys Thr Arg Glu Arg Tyr Thr Pro Phe Tyr  
20 25 30

Asp Asp Arg Ala Asp Tyr Asn Thr Asn Ser Lys Ser Tyr Tyr Asp Tyr  
35 40 45

Ile Ser Arg Leu Ser Lys Leu Ile Glu Val Leu Ala Arg Arg Ile Trp  
50 55 60

Asp Tyr Asp Asn Glu Leu Lys Lys Arg Phe Lys Asn Trp Asp Asp Leu  
65 70 75 80

Met Lys Ala Phe Pro Glu Gln Ala Lys Asp Leu Phe Arg Gly Trp Leu  
85 90 95

Asn Asp Gly Thr Ile Asp Ser Ile Ile His Asp Glu Phe Lys Lys Tyr  
100 105 110

Ser Ala Gly Leu Thr Ser Ala Phe Ala Leu Phe Lys Val Thr Glu Met  
115 120 125

Lys Gln Met Asn Asp Phe Lys Ser Glu Val Lys Asp Leu Ile Lys Asp  
130 135 140

Ile Asp Arg Phe Val Asn Gly Phe Glu Leu Asn Glu Leu Glu Pro Lys  
145 150 155 160

Phe Val Met Gly Phe Gly Gly Ile Arg Asn Ala Val Asn Gln Ser Ile  
165 170 175

Asn Ile Asp Lys Glu Thr Asn His Met Tyr Ser Thr Gln Ser Asp Ser  
180 185 190

Gln Lys Pro Glu Gly Phe Trp Ile Asn Lys Leu Thr Pro Ser Gly Asp  
195 200 205

Leu Ile Ser Ser Met Arg Ile Val Gln Gly Gly His Gly Thr Thr Ile  
210 215 220

Gly Leu Glu Arg Gln Ser Asn Gly Glu Met Lys Ile Trp Leu His His  
225 230 235 240

Asp Gly Val Ala Lys Leu Leu Gln Val Ala Tyr Lys Asp Asn Tyr Val  
 245 250 255  
 Leu Asp Leu Glu Glu Ala Lys Gly Leu Thr Asp Tyr Thr Pro Gln Ser  
 260 265 270  
 Leu Leu Asn Lys His Thr Phe Thr Pro Leu Ile Asp Glu Ala Asn Asp  
 275 280 285  
 Lys Leu Ile Leu Arg Phe Gly Asp Gly Thr Ile Gln Val Arg Ser Arg  
 290 295 300  
 Ala Asp Val Lys Asn His Ile Asp Asn Val Glu Lys Glu Met Thr Ile  
 305 310 315 320  
 Asp Asn Ser Glu Asn Asn Asp Asn Arg Trp Met Gln Gly Ile Ala Val  
 325 330 335  
 Asp Gly Asp Asp Leu Tyr Trp Leu Ser Gly Asn Ser Ser Val Asn Ser  
 340 345 350  
 His Val Gln Ile Gly Lys Tyr Ser Leu Thr Thr Gly Gln Lys Ile Tyr  
 355 360 365  
 Asp Tyr Pro Phe Lys Leu Ser Tyr Gln Asp Gly Ile Asn Phe Pro Arg  
 370 375 380  
 Asp Asn Phe Lys Glu Pro Glu Gly Ile Cys Ile Tyr Thr Asn Pro Lys  
 385 390 395 400  
 Thr Lys Arg Lys Ser Leu Leu Ala Met Thr Asn Gly Gly Gly  
 405 410 415  
 Lys Arg Phe His Asn Leu Tyr Gly Phe Phe Gln Leu Gly Glu Tyr Glu  
 420 425 430  
 His Phe Glu Ala Leu Arg Ala Arg Gly Ser Gln Asn Tyr Lys Leu Thr  
 435 440 445  
 Lys Asp Asp Gly Arg Ala Leu Ser Ile Pro Asp His Ile Asp Asp Leu  
 450 455 460  
 Asn Asp Leu Thr Gln Ala Gly Phe Tyr Tyr Ile Asp Gly Gly Thr Ala  
 465 470 475 480  
 Glu Lys Leu Lys Asn Met Pro Met Asn Gly Ser Lys Arg Ile Ile Asp  
 485 490 495  
 Ala Gly Cys Phe Ile Asn Val Tyr Pro Thr Thr Gln Thr Leu Gly Thr  
 500 505 510

Val Gln Glu Leu Thr Arg Phe Ser Thr Gly Arg Lys Met Val Lys Met  
515 520 525

Val Arg Gly Met Thr Leu Asp Val Phe Thr Leu Lys Trp Asp Tyr Gly  
530 535 540

Leu Trp Thr Thr Ile Lys Thr Asp Ala Pro Tyr Gln Glu Tyr Leu Glu  
545 550 555 560

Ala Ser Gln Tyr Asn Asn Trp Ile Ala Tyr Val Thr Thr Ala Gly Glu  
565 570 575

Tyr Tyr Ile Thr Gly Asn Gln Met Glu Leu Phe Arg Asp Ala Pro Glu  
580 585 590

Glu Ile Lys Lys Val Gly Ala Trp Leu Arg Val Ser Ser Gly Asn Ala  
595 600 605

Val Gly Glu Val Arg Gln Thr Leu Glu Ala Asn Ile Ser Glu Tyr Lys  
610 615 620

Glu Phe Phe Ser Asn Val Asn Ala Glu Thr Lys His Arg Glu Tyr Gly  
625 630 635 640

Trp Val Ala Lys His Gln Lys  
645

<210> 77

<211> 587

<212> PRT

<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 77

Met Arg Lys Leu Thr Asn Phe Lys Phe Phe Tyr Asn Thr Pro Phe Thr  
1 5 10 15

Asp Tyr Gln Asn Thr Ile His Phe Asn Ser Asn Lys Glu Arg Asp Asp  
20 25 30

Tyr Phe Leu Asn Gly Arg His Phe Lys Ser Leu Asp Tyr Ser Lys Gln  
35 40 45

Pro Tyr Asn Phe Ile Arg Asp Arg Met Glu Ile Asn Val Asp Met Gln  
50 55 60

Trp His Asp Ala Gln Gly Ile Asn Tyr Met Thr Phe Leu Ser Asp Phe  
65 70 75 80

Glu Asp Arg Arg Tyr Tyr Ala Phe Val Asn Gln Ile Glu Tyr Val Asn  
85 90 95

Asp Val Val Val Lys Ile Tyr Phe Val Ile Asp Thr Ile Met Thr Tyr  
 100 105 110  
 Thr Gln Gly Asn Val Leu Glu Gln Leu Ser Asn Val Asn Ile Glu Arg  
 115 120 125  
 Gln His Leu Ser Lys Arg Thr Tyr Asn Tyr Met Leu Pro Met Leu Arg  
 130 135 140  
 Asn Asn Asp Asp Val Leu Lys Val Ser Asn Lys Asn Tyr Val Tyr Asn  
 145 150 155 160  
 Gln Met Gln Gln Tyr Leu Glu Asn Leu Val Leu Phe Gln Ser Ser Ala  
 165 170 175  
 Asp Leu Ser Lys Lys Phe Gly Thr Lys Lys Glu Pro Asn Leu Asp Thr  
 180 185 190  
 Ser Lys Gly Thr Ile Tyr Asp Asn Ile Thr Ser Pro Val Asn Leu Tyr  
 195 200 205  
 Val Met Glu Tyr Gly Asp Phe Ile Asn Phe Met Asp Lys Met Ser Ala  
 210 215 220  
 Tyr Pro Trp Ile Thr Gln Asn Phe Gln Lys Val Gln Met Leu Pro Lys  
 225 230 235 240  
 Asp Phe Ile Asn Thr Lys Asp Leu Glu Asp Val Lys Thr Ser Glu Lys  
 245 250 255  
 Ile Thr Gly Leu Lys Thr Leu Lys Gln Gly Gly Lys Ser Lys Glu Trp  
 260 265 270  
 Ser Leu Lys Asp Leu Ser Leu Ser Phe Ser Asn Leu Gln Glu Met Met  
 275 280 285  
 Leu Ser Lys Lys Asp Glu Phe Lys His Met Ile Arg Asn Glu Tyr Met  
 290 295 300  
 Thr Ile Glu Phe Tyr Asp Trp Asn Gly Asn Thr Met Leu Leu Asp Ala  
 305 310 315 320  
 Gly Lys Ile Ser Gln Lys Thr Gly Val Lys Leu Arg Thr Lys Ser Ile  
 325 330 335  
 Ile Gly Tyr His Asn Glu Val Arg Val Tyr Pro Val Asp Tyr Asn Ser  
 340 345 350  
 Ala Glu Asn Asp Arg Pro Ile Leu Ala Lys Asn Lys Glu Ile Leu Ile  
 355 360 365

Asp Thr Gly Ser Phe Leu Asn Thr Asn Ile Thr Phe Asn Ser Phe Ala  
370 375 380

Gln Val Pro Ile Leu Ile Asn Asn Gly Ile Leu Gly Gln Ser Gln Gln  
385 390 395 400

Ala Asn Arg Gln Lys Asn Ala Glu Ser Gln Leu Ile Thr Asn Arg Ile  
405 410 415

Asp Asn Val Leu Asn Gly Ser Asp Pro Lys Ser Arg Phe Tyr Asp Ala  
420 425 430

Val Ser Val Ala Ser Asn Leu Ser Pro Thr Ala Leu Phe Gly Lys Phe  
435 440 445

Asn Glu Glu Tyr Asn Phe Tyr Lys Gln Gln Gln Ala Glu Tyr Lys Asp  
450 455 460

Leu Ala Leu Gln Pro Pro Ser Val Thr Glu Ser Glu Met Gly Asn Ala  
465 470 475 480

Phe Gln Ile Ala Asn Ser Ile Asn Gly Leu Thr Met Lys Ile Ser Val  
485 490 495

Pro Ser Pro Lys Glu Ile Thr Phe Leu Gln Lys Tyr Tyr Met Leu Phe  
500 505 510

Gly Phe Glu Val Asn Asp Tyr Asn Ser Phe Ile Glu Pro Ile Asn Ser  
515 520 525

Met Thr Val Cys Asn Tyr Leu Lys Cys Thr Gly Thr Tyr Thr Ile Arg  
530 535 540

Asp Ile Asp Pro Met Leu Met Glu Gln Leu Lys Ala Ile Leu Glu Ser  
545 550 555 560

Gly Val Arg Phe Trp His Asn Asp Gly Ser Gly Asn Pro Met Leu Gln  
565 570 575

Asn Pro Leu Asn Asn Lys Phe Arg Glu Gly Val  
580 585

<210> 78  
<211> 487  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 78

Met Ile Leu Lys Arg Val Ile Thr Met Asn Asp Gln Glu Lys Ile Asp  
1 5 10 15

Lys Phe Thr His Ser Tyr Ile Asn Asp Asp Phe Gly Leu Thr Ile Asp  
 20 25 30

Gln Leu Val Pro Lys Val Lys Gly Tyr Gly Arg Phe Asn Val Trp Leu  
 35 40 45

Gly Gly Asn Glu Ser Lys Ile Arg Gln Val Leu Lys Ala Val Lys Glu  
 50 55 60

Ile Gly Val Ser Pro Thr Leu Phe Ala Val Tyr Glu Lys Asn Glu Gly  
 65 70 75 80

Phe Ser Ser Gly Leu Gly Trp Leu Asn His Thr Ser Ala Arg Gly Asp  
 85 90 95

Tyr Leu Thr Asp Ala Lys Phe Ile Ala Arg Lys Leu Val Ser Gln Ser  
 100 105 110

Lys Gln Ala Gly Gln Pro Ser Trp Tyr Asp Ala Gly Asn Ile Val His  
 115 120 125

Phe Val Pro Gln Asp Val Gln Arg Lys Gly Asn Ala Asp Phe Ala Lys  
 130 135 140

Asn Met Lys Ala Gly Thr Ile Gly Arg Ala Tyr Ile Pro Leu Thr Ala  
 145 150 155 160

Ala Ala Thr Trp Ala Ala Tyr Tyr Pro Leu Gly Leu Lys Ala Ser Tyr  
 165 170 175

Asn Lys Val Gln Asn Tyr Gly Asn Pro Phe Leu Asp Gly Ala Asn Thr  
 180 185 190

Ile Leu Ala Trp Gly Gly Lys Leu Asp Gly Lys Gly Ser Pro Ser  
 195 200 205

Asp Ser Ser Asp Ser Gly Ser Ser Gly Asp Ser Gly Ser Ser Leu Leu  
 210 215 220

Ala Leu Ala Lys Gln Ala Met Gln Glu Leu Leu Lys Lys Ile Gln Asp  
 225 230 235 240

Ala Leu Gln Trp Asp Val His Ser Ile Gly Ser Asp Lys Phe Phe Ser  
 245 250 255

Asn Asp Tyr Phe Thr Leu Glu Lys Thr Phe Asn Asn Thr Tyr His Ile  
 260 265 270

Lys Met Thr Ile Gly Leu Leu Asp Ser Leu Lys Lys Leu Ile Asp Ser  
 275 280 285

Val Gln Val Asp Ser Gly Ser Ser Ser Asn Pro Thr Asp Asp Asp  
290 295 300

Gly Asp His Lys Pro Ile Ser Gly Lys Ser Val Lys Pro Asn Gly Lys  
305 310 315 320

Ser Gly Arg Val Ile Gly Gly Asn Trp Thr Tyr Ala Gln Leu Pro Glu  
325 330 335

Lys Tyr Lys Lys Ala Ile Gly Val Pro Leu Phe Lys Lys Glu Tyr Leu  
340 345 350

Tyr Lys Pro Gly Asn Ile Phe Pro Gln Thr Gly Asn Ala Gly Gln Cys  
355 360 365

Thr Glu Leu Thr Trp Ala Tyr Met Ser Gln Leu His Gly Lys Arg Gln  
370 375 380

Pro Thr Asp Asp Gly Gln Ile Thr Asn Gly Gln Arg Val Trp Tyr Val  
385 390 395 400

Tyr Lys Lys Leu Gly Ala Lys Thr Thr His Asn Pro Thr Val Gly Tyr  
405 410 415

Gly Phe Ser Ser Lys Pro Pro Tyr Leu Gln Ala Thr Ala Tyr Gly Ile  
420 425 430

Gly His Thr Gly Val Val Ala Val Phe Glu Asp Gly Ser Phe Leu  
435 440 445

Val Ala Asn Tyr Asn Val Pro Pro Tyr Val Ala Pro Ser Arg Val Val  
450 455 460

Leu Tyr Thr Leu Ile Asn Gly Val Pro Asn Asn Ala Gly Asp Asn Ile  
465 470 475 480

Val Phe Phe Ser Gly Ile Ala  
485

<210> 79

<211> 415

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 79

Met Val Lys Gln Asn Arg Leu Asp Met Val Arg Asp Tyr Gln Asn Ala  
1 5 10 15

Val Asn His Val Arg Lys Lys Ile Pro Asp Lys Tyr Asn Gln Ile Glu  
20 25 30

Leu Val Asp Glu Leu Met Asn Asp Asp Ile Asp Tyr Tyr Ile Ser Ile  
 35 40 45

Ser Asn Arg Ser Asp Gly Lys Ser Phe Asn Tyr Val Ser Phe Phe Ile  
 50 55 60

Tyr Leu Ala Ile Lys Leu Asp Ile Lys Phe Thr Leu Leu Ser Arg His  
 65 70 75 80

Tyr Thr Leu Arg Asp Ala Tyr Arg Asp Phe Ile Glu Glu Ile Ile Asp  
 85 90 95

Glu Asn Pro Leu Phe Lys Ser Lys Arg Val Thr Phe Arg Ser Ala Arg  
 100 105 110

Asp Tyr Leu Ala Ile Ile Tyr Gln Asp Lys Glu Ile Gly Val Ile Thr  
 115 120 125

Asp Leu Asn Ser Ala Thr Asp Leu Lys Tyr His Ser Asn Phe Leu Lys  
 130 135 140

His Tyr Pro Ile Ile Ile Tyr Asp Glu Phe Leu Ala Leu Glu Asp Asp  
 145 150 155 160

Tyr Leu Ile Asp Glu Trp Asp Lys Leu Lys Thr Ile Tyr Glu Ser Ile  
 165 170 175

Asp Arg Asn His Gly Asn Val Asp Tyr Ile Gly Phe Pro Lys Met Phe  
 180 185 190

Leu Leu Gly Asn Ala Val Asn Phe Ser Ser Pro Ile Leu Ser Asn Leu  
 195 200 205

Asn Ile Tyr Asn Leu Leu Gln Lys His Lys Met Asn Thr Ser Arg Leu  
 210 215 220

Tyr Lys Asn Ile Phe Leu Glu Met Arg Arg Asn Asp Tyr Val Asn Glu  
 225 230 235 240

Lys Arg Asn Thr Arg Ala Phe Asn Ser Asn Asp Asp Ala Met Thr Thr  
 245 250 255

Gly Glu Phe Glu Phe Asn Glu Tyr Asn Leu Ala Asp Asp Asn Leu Arg  
 260 265 270

Asn His Ile Asn Gln Asn Gly Asp Phe Phe Tyr Ile Lys Thr Asp Asp  
 275 280 285

Lys Tyr Ile Lys Val Met Tyr Asn Val Thr Thr Phe Met Thr Asn Ile  
 290 295 300

Ile Val Val Pro Tyr Thr Lys Gln Tyr Glu Phe Cys Thr Lys Ile Arg  
305 310 315 320  
Asp Ile Asp Asn His Val Thr Tyr Leu Arg Asp Asp Met Phe Tyr Lys  
325 330 335  
Glu Asn Met Glu Arg Tyr Tyr Asn Pro Ser Asn Leu His Phe Asp  
340 345 350  
Asn Ala Tyr Ser Lys Asn Tyr Val Val Asp Asn Asp Arg Tyr Leu Tyr  
355 360 365  
Leu Asp Met Asn Lys Ile Ile Lys Phe His Ile Lys Asn Glu Met Lys  
370 375 380  
Lys Asn Met Ser Glu Phe Glu Arg Lys Glu Lys Ile Tyr Glu Asp Asn  
385 390 395 400  
Tyr Ile Glu Asn Thr Lys Lys Tyr Leu Met Lys Gln Tyr Gly Leu  
405 410 415

<210> 80  
<211> 408  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 80

Met Ala Gln Gln Ser Thr Lys Asn Glu Thr Ala Leu Leu Val Ala Lys  
1 5 10 15  
Ser Ala Lys Ser Ala Leu Gln Asp Phe Asn His Asp Tyr Ser Lys Ser  
20 25 30  
Trp Thr Phe Gly Asp Lys Trp Asp Asn Ser Asn Thr Met Phe Glu Thr  
35 40 45  
Phe Val Asn Lys Tyr Leu Phe Pro Lys Ile Asn Glu Thr Leu Leu Ile  
50 55 60  
Asp Ile Ala Leu Gly Asn Arg Phe Asn Trp Leu Ala Lys Glu Gln Asp  
65 70 75 80  
Phe Ile Gly Gln Tyr Ser Glu Glu Tyr Val Ile Met Asp Thr Val Pro  
85 90 95  
Ile Asn Met Asp Leu Ser Lys Asn Glu Glu Leu Met Leu Lys Arg Asn  
100 105 110  
Tyr Pro Arg Met Ala Thr Lys Leu Tyr Gly Asn Gly Ile Val Lys Lys  
115 120 125

Gln Lys Phe Thr Leu Asn Asn Asn Asp Thr Arg Phe Asn Phe Gln Thr  
 130 135 140  
 Leu Ala Asp Ala Thr Asn Tyr Ala Leu Gly Val Tyr Lys Lys Lys Ile  
 145 150 155 160  
 Ser Asp Ile Asn Val Leu Glu Glu Lys Glu Met Arg Ala Met Leu Val  
 165 170 175  
 Asp Tyr Ser Leu Asn Gln Leu Ser Glu Thr Asn Val Arg Lys Ala Thr  
 180 185 190  
 Ser Lys Glu Asp Leu Ala Ser Lys Val Phe Glu Ala Ile Leu Asn Leu  
 195 200 205  
 Gln Asn Asn Ser Ala Lys Tyr Asn Glu Val His Arg Ala Ser Gly Gly  
 210 215 220  
 Ala Ile Gly Gln Tyr Thr Thr Val Ser Lys Leu Lys Asp Ile Val Ile  
 225 230 235 240  
 Leu Thr Thr Asp Ser Leu Lys Ser Tyr Leu Leu Asp Thr Lys Ile Ala  
 245 250 255  
 Asn Thr Phe Gln Ile Ala Gly Ile Asp Phe Thr Asp His Val Ile Ser  
 260 265 270  
 Phe Asp Asp Leu Gly Gly Val Phe Lys Val Thr Lys Glu Phe Lys Leu  
 275 280 285  
 Gln Asn Gln Asp Ser Ile Asp Phe Leu Arg Ala Tyr Gly Asp Tyr Gln  
 290 295 300  
 Ser Gln Leu Gly Asp Thr Ile Pro Val Gly Ala Val Phe Thr Tyr Asp  
 305 310 315 320  
 Val Ser Lys Leu Lys Glu Phe Thr Gly Asn Val Glu Glu Ile Lys Pro  
 325 330 335  
 Lys Ser Asp Leu Tyr Ala Phe Ile Leu Asp Ile Asn Ser Ile Lys Tyr  
 340 345 350  
 Lys Arg Tyr Thr Lys Gly Met Leu Lys Pro Pro Phe His Asn Pro Glu  
 355 360 365  
 Phe Asp Glu Val Thr His Trp Ile His Tyr Tyr Ser Phe Lys Ala Ile  
 370 375 380  
 Ser Pro Phe Phe Asn Lys Ile Leu Ile Thr Asp Gln Asp Val Asn Pro  
 385 390 395 400

Lys Pro Glu Glu Glu Leu Gln Glu  
405

<210> 81  
<211> 327  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 81

Met Asn Asn Asp Lys Arg Gly Leu Asn Val Glu Leu Ser Lys Glu Ile  
1 5 10 15

Ser Lys Arg Val Val Glu His Arg Asn Arg Phe Lys Arg Leu Met Phe  
20 25 30

Asn Arg Tyr Leu Glu Phe Leu Pro Leu Leu Ile Asn Tyr Thr Asn Arg  
35 40 45

Asp Thr Val Gly Ile Asp Phe Ile Gln Leu Glu Ser Ala Leu Arg Gln  
50 55 60

Asn Ile Asn Val Val Val Gly Glu Ala Arg Asn Lys Gln Ile Met Ile  
65 70 75 80

Leu Gly Tyr Val Asn Asn Thr Tyr Phe Asn Gln Ala Pro Asn Phe Ser  
85 90 95

Ser Asn Phe Asn Phe Gln Phe Gln Lys Arg Leu Thr Lys Glu Asp Ile  
100 105 110

Tyr Phe Ile Val Pro Asp Tyr Leu Ile Pro Asp Asp Cys Leu Gln Ile  
115 120 125

His Lys Leu Tyr Asp Asn Cys Met Ser Gly Asn Phe Val Val Met Gln  
130 135 140

Asn Lys Pro Ile Gln Tyr Asn Ser Asp Ile Glu Ile Ile Glu His Tyr  
145 150 155 160

Thr Asp Glu Leu Ala Glu Val Ala Leu Ser Arg Phe Ser Leu Ile Met  
165 170 175

Gln Ala Lys Phe Ser Lys Ile Phe Lys Ser Glu Ile Asn Asp Glu Ser  
180 185 190

Ile Asn Gln Leu Val Ser Glu Ile Tyr Asn Gly Ala Pro Phe Val Lys  
195 200 205

Met Ser Pro Met Phe Asn Ala Asp Asp Asp Ile Ile Asp Leu Thr Ser  
210 215 220

Asn Ser Val Ile Pro Ala Leu Thr Glu Met Lys Arg Glu Tyr Gln Asn  
225 230 235 240

Lys Ile Ser Glu Leu Ser Asn Tyr Leu Gly Ile Asn Ser Leu Ala Val  
245 250 255

Asp Lys Glu Ser Gly Val Ser Asp Glu Glu Ala Lys Ser Asn Arg Gly  
260 265 270

Phe Thr Thr Ser Asn Ser Asn Ile Tyr Leu Lys Gly Arg Glu Pro Ile  
275 280 285

Thr Phe Leu Ser Lys Arg Tyr Gly Leu Asp Ile Lys Pro Tyr Tyr Asp  
290 295 300

Asp Glu Thr Thr Ser Lys Ile Ser Met Val Asp Thr Leu Phe Lys Asp  
305 310 315 320

Glu Ser Ser Asp Ile Asn Gly  
325

<210> 82

<211> 251

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 82

Met Ala Arg Tyr Thr Met Thr Leu Tyr Asp Phe Ile Lys Ser Glu Leu  
1 5 10 15

Ile Lys Lys Gly Phe Asn Glu Phe Val Asn Asp Asn Lys Leu Thr Phe  
20 25 30

Tyr Asp Asp Glu Phe Gln Phe Met Gln Lys Met Leu Lys Phe Asp Lys  
35 40 45

Asp Val Leu Ala Ile Val Asn Glu Lys Val Phe Lys Gly Phe Ser Leu  
50 55 60

Lys Asp Glu Leu Ser Asp Leu Leu Phe Lys Lys Ser Phe Thr Ile His  
65 70 75 80

Phe Leu Asp Arg Glu Ile Asn Arg Gln Thr Val Glu Ala Phe Gly Met  
85 90 95

Gln Val Ile Thr Val Cys Ile Thr His Glu Asp Tyr Leu Asn Val Val  
100 105 110

Tyr Ser Ser Ser Glu Val Glu Lys Tyr Leu Gln Ser Gln Gly Phe Thr  
115 120 125

Glu His Asn Glu Asp Thr Thr Ser Asn Thr Asp Glu Thr Ser Asn Gln  
130 135 140

Asn Ala Thr Ser Leu Asp Asn Ser Thr Gly Met Thr Ala Asn Arg Asn  
145 150 155 160

Ala Tyr Val Ser Leu Pro Gln Ser Glu Val Asn Ile Asp Val Asp Asn  
165 170 175

Thr Thr Leu Arg Phe Ala Asp Asn Asn Thr Ile Asp Asn Gly Lys Thr  
180 185 190

Val Asn Lys Ser Ser Asn Glu Ser Asn Gln Asn Ala Lys Arg Asn Gln  
195 200 205

Asn Gln Lys Gly Asn Ala Lys Gly Thr Gln Phe Thr Lys Gln Tyr Leu  
210 215 220

Ile Asp Asn Ile Asp Lys Ala Tyr Asp Leu Arg Lys Lys Ile Leu Asn  
225 230 235 240

Glu Phe Asp Lys Lys Cys Phe Leu Gln Ile Trp  
245 250

<210> 83  
<211> 250  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
<400> 83

Met Lys Ser Gln Gln Gln Ala Lys Glu Trp Ile Tyr Lys His Glu Gly  
1 5 10 15

Ala Gly Val Asp Phe Asp Gly Ala Tyr Gly Phe Gln Cys Met Asp Leu  
20 25 30

Ser Val Ala Tyr Val Tyr Tyr Ile Thr Asp Gly Lys Val Arg Met Trp  
35 40 45

Gly Asn Ala Lys Asp Ala Ile Asn Asn Asp Phe Lys Gly Leu Ala Thr  
50 55 60

Val Tyr Lys Asn Thr Pro Ser Phe Lys Pro Gln Leu Gly Asp Val Ala  
65 70 75 80

Val Tyr Thr Asn Gly Gln Tyr Gly His Ile Gln Cys Val Leu Ser Gly  
85 90 95

Asn Leu Asp Tyr Tyr Thr Cys Leu Glu Gln Asn Trp Leu Gly Gly Gly  
100 105 110

Phe Asp Gly Trp Glu Lys Ala Thr Ile Arg Thr His Tyr Tyr Asp Gly  
 115 120 125

Val Thr His Phe Ile Arg Pro Lys Phe Ser Gly Ser Asn Ser Lys Ala  
 130 135 140

Leu Glu Thr Ser Lys Val Asn Thr Phe Gly Lys Trp Lys Arg Asn Gln  
 145 150 155 160

Tyr Gly Thr Tyr Tyr Arg Asn Glu Asn Gly Thr Phe Thr Cys Gly Phe  
 165 170 175

Leu Pro Ile Phe Ala Arg Val Gly Ser Pro Lys Leu Ser Glu Pro Asn  
 180 185 190

Gly Tyr Trp Phe Gln Pro Asn Gly Tyr Thr Pro Tyr Asn Glu Val Cys  
 195 200 205

Leu Ser Asp Gly Tyr Val Trp Ile Gly Tyr Asn Trp Gln Gly Thr Arg  
 210 215 220

Tyr Tyr Leu Pro Val Arg Gln Trp Asn Gly Lys Thr Gly Asn Ser Tyr  
 225 230 235 240

Ser Val Gly Ile Pro Trp Gly Val Phe Ser  
 245 250

<210> 84  
 <211> 160  
 <212> PRT  
 <213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 84

Leu Val Arg His Thr Ser Glu Met Asp Arg Trp Lys Lys Glu Arg Glu  
 1 5 10 15

Ala Arg Lys Glu Gln Glu Lys Asp Leu Phe Leu Asn Asp Phe Ser Asn  
 20 25 30

Val Asn Phe Lys Phe Asp Asp Lys Asp Leu Gln Glu Ala Tyr Ile Asp  
 35 40 45

Thr Trp Lys His Phe Ala His Leu Pro Tyr Phe Pro Lys Glu Arg Asn  
 50 55 60

Val Ser Tyr Val Asn Ala Val Ser Leu Val Arg Gly Ser Arg His Lys  
 65 70 75 80

Lys Leu Asn Tyr Ile Leu Glu Ile Tyr Asn Arg Asn Asp Asp Ser Asn  
 85 90 95

Asn Lys Asn Ala Lys Lys His Lys Tyr Ala Leu Tyr Asn Leu Gln Ala  
100 105 110

Lys Asn Asn Asn Ser Ser Met Tyr Lys Tyr Ile Lys Glu Ile Asp Thr  
115 120 125

Leu Tyr Lys Glu Ile Gly Lys Ser Asp Arg Pro Val Thr Asn Ile Asp  
130 135 140

Asp Glu Asp Val Arg Tyr Asn Phe Leu Tyr Tyr Ala Thr Phe Asp Glu  
145 150 155 160

<210> 85

<211> 122

<212> PRT

<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 85

Met Thr Asn Val Lys Asp Ile Leu Ser Arg His Gln Asn Thr Leu Ala  
1 5 10 15

Arg Phe Glu Phe Glu Glu Lys Glu Arg Glu Phe Ile Lys Leu Ser Glu  
20 25 30

Leu Val Glu Lys Tyr Gly Met Lys Lys Glu Tyr Ile Val Arg Ala Leu  
35 40 45

Phe Thr Asn Lys Glu Ser Lys Phe Gly Glu Gln Gly Val Ile Val Thr  
50 55 60

Asp Asp Tyr Asn Val Asn Leu Pro Asn His Leu Thr Glu Leu Ile Lys  
65 70 75 80

Glu Met Arg Ala Asp Glu Asp Val Val Asp Ile Ile Asn Ala Gly Glu  
85 90 95

Val Gln Phe Thr Ile Tyr Glu Tyr Glu Asn Lys Lys Gly Gln Lys Gly  
100 105 110

Tyr Ser Ile Asn Phe Gly Gln Val Ser Phe  
115 120

<210> 86  
<211> 140  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 86

Met Asn Glu Val Lys Phe Arg Phe Thr Asp Ser Glu Ala Phe His Met  
1 5 10 15

Phe Ile Tyr Ala Gly Asp Leu Lys Leu Leu Tyr Phe Leu Phe Val Leu  
20 25 30

Met Phe Val Asp Ile Ile Thr Gly Ile Ser Lys Ala Ile Lys Asn Asn  
35 40 45

Asn Leu Trp Ser Lys Lys Ser Met Arg Gly Phe Ser Lys Lys Leu Leu  
50 55 60

Ile Phe Cys Ile Ile Ile Leu Ala Asn Ile Ile Asp Gln Ile Leu Gln  
65 70 75 80

Leu Lys Gly Gly Leu Leu Met Ile Thr Ile Phe Tyr Tyr Ile Ala Asn  
85 90 95

Glu Gly Leu Ser Ile Val Glu Asn Cys Ala Glu Met Asp Val Leu Val  
100 105 110

Pro Glu Gln Ile Lys Asp Lys Leu Arg Val Ile Lys Asn Asp Thr Glu  
115 120 125

Lys Ser Asp Asn Asn Glu Arg Ser Arg Glu Asp Arg  
130 135 140

<210> 87  
<211> 136  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 87

Met Lys Ile Lys Thr Thr Phe Arg Leu Asn Asn Leu Ile Tyr Tyr Leu  
1 5 10 15

Leu Thr Asn Arg Asp Tyr Tyr Asn Asp Lys Phe Glu Lys Phe Thr Ser  
20 25 30

Ser Asn Lys Lys Cys Ile Val Lys Ile Asn Met Gly Asp Val Tyr Ile  
35 40 45

Glu Phe Asp Lys Gln Tyr Asp Asp Phe Glu Ile Glu Lys Glu Leu Phe  
50 55 60

Thr Leu Asp Ile Asp Ile Asp Ile Lys Lys His Val Phe Asn Ile Leu  
65 70 75 80

Val Phe Tyr Tyr Arg Asn Tyr Leu Ser Asn Glu Leu Ile Arg Glu Ile  
85 90 95

Leu Leu Asn Val Thr Ile Asp Asp Val Leu Ser Asn Phe Asp Lys Pro  
100 105 110

Leu Glu Ser Glu Leu Met Ile Ile Tyr Gln Asn Lys Val Ile Tyr Asp  
115 120 125

Asn Gly Lys Val Ile Asp His Glu  
130 135

<210> 88

<211> 92

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 88

Met Lys Met Val His Leu His Val Val Phe Tyr Gln Tyr Leu His Val  
1 5 10 15

Ser Val Val Gln Asn Tyr Gln Asn Leu Met Ala Ile Gly Ser Asn Gln  
20 25 30

Thr Val Ile His His Ile Thr Lys Phe Val Tyr Gln Met Val Thr Tyr  
35 40 45

Gly Leu Val Ile Thr Gly Lys Ala His Val Ile Ile Tyr Gln Cys Ala  
50 55 60

Asn Gly Met Glu Lys Gln Val Ile Val Thr Val Leu Val Phe Leu Gly  
65 70 75 80

Gly Cys Ser His Asn Gly Tyr Phe Ser Leu Phe Leu  
85 90

<210> 89

<211> 80

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 89

Val Thr Ile Thr Pro Cys Ser Pro Asn Phe Asp Ser Leu Phe Val Asn  
1 5 10 15

Asn Ala Leu Thr Ile Tyr Ser Phe Phe Ile Pro Tyr Phe Ser Thr Asn  
20 25 30

Ser Asp Ser Leu Ile Asn Ser Leu Ser Phe Ser Ser Asn Ser Asn Leu  
35 40 45

Ala Asn Val Phe Trp Cys Leu Asp Lys Ile Ser Phe Thr Phe Val Ile  
50 55 60

Leu Phe Leu Leu Leu Phe Lys Leu Phe Ala Phe Cys Asn Cys Asp Leu  
65 70 75 80

<210> 90

<211> 78

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 90

Met Lys Val Asp Asp Ile Val Thr Leu Arg Val Lys Gly Tyr Ile Leu  
1 5 10 15

His Tyr Leu Asp Asp Asp Asn Glu Tyr Ile Glu Glu Phe Leu Pro Leu  
20 25 30

His Glu Tyr His Leu Thr Lys Thr Gln Ala Lys Glu Leu Leu Pro Asp  
35 40 45

Thr Cys Lys Leu Leu Ser Thr Thr Arg Thr Thr Lys Thr Ile Gln Val  
50 55 60

Tyr Tyr Asn Asp Leu Leu Gln Ile Ala Ile Ala Glu Ser Lys  
65 70 75

<210> 91

<211> 73

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 91

Met Glu Arg Leu Lys Leu Leu Leu Val Tyr Arg Lys Thr Pro Leu  
1 5 10 15

Ile Gln Ala Ser Ile Leu Lys Pro Leu Tyr Val Asn Asn Ser Leu Thr  
20 25 30

Val Pro Leu Leu Lys Thr Ile Lys Val Ser Ile Met Ser Lys Val Gln  
35 40 45

Tyr Arg Tyr Ile Arg Leu Lys Leu Lys Leu Tyr Val Val Met Tyr Met  
50 55 60

Met Asn Ile Leu Leu Met Asn Leu Ile  
65 70

<210> 92  
<211> 70  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 92

Met Leu Ile Gly Thr Val Ser Ile Ile Thr Tyr Ser Ser Leu Tyr Cys  
1 5 10 15

Pro Ile Lys Ser Cys Ser Leu Ala Asn Gln Leu Lys Arg Leu Pro Asn  
20 25 30

Ala Ile Ser Ile Asn Lys Val Ser Leu Ile Leu Gly Asn Lys Tyr Leu  
35 40 45

Phe Thr Asn Val Ser Asn Ile Val Phe Glu Leu Ser His Leu Ser Pro  
50 55 60

Asn Val Gln Asp Phe Glu  
65 70

<210> 93  
<211> 68  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 93

Met Leu Pro Gly Leu Tyr Lys Tyr Ser Phe Leu Asn Lys Gly Thr Pro  
1 5 10 15

Ile Ala Phe Leu Tyr Phe Ser Gly Asn Cys Ala Tyr Val Gln Leu Pro  
20 25 30

Pro Ile Thr Arg Pro Leu Phe Pro Phe Gly Leu Thr Asp Leu Pro Leu  
35 40 45

Ile Gly Leu Trp Ser Pro Ser Ser Ser Val Gly Leu Glu Leu Leu Leu  
50 55 60

Pro Leu Ser Thr  
65

<210> 94  
<211> 62  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 94

Met Ser Lys Arg Phe Cys Phe Thr Met Phe Leu Leu Leu Val Ile Val  
1 5 10 15

Tyr Asp Val Val Tyr Ser Val Lys Phe Ile Arg Gln Met Leu His Asn  
20 25 30

Ile Lys Ser Tyr Thr Ser His Leu His His Gln Tyr Leu Ser Leu Val  
35 40 45

Tyr Leu Ile Tyr Gln Phe Leu Tyr Ile Lys Tyr Arg Phe Leu  
50 55 60

<210> 95  
<211> 60  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 95

Met His His Gln Ser Gln His Leu Pro Pro His Ala Tyr Ile Ser Ile  
1 5 10 15

Leu Leu Leu Val Val Val Ile Ser Phe Ile Ser Leu Leu Phe Leu Met  
20 25 30

Phe Cys Tyr Pro Thr Ile Phe Thr Met Phe Cys Phe Arg Ile Asn Ile  
35 40 45

Thr Glu Glu Phe Phe Ile Phe Arg Tyr Ile Ser Leu  
50 55 60

<210> 96  
<211> 47  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 96

Met Phe Ala Lys Met Ile Ile Gln Asn Ile Asn Asn Phe Leu Glu Asn  
1 5 10 15

Pro Leu Ile Asp Phe Phe Asp His Lys Leu Leu Phe Leu Ile Ala Phe  
20 25 30

<210> 102  
<211> 54  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 102

Met Glu Tyr Met His Val Gln Leu Tyr Leu Leu Ser Tyr Phe Leu Gln  
1 5 10 15

Asn Leu His Tyr Leu Phe Phe Val Arg Leu Val Val Gln Ser Gly Arg  
20 25 30

Cys Tyr Leu Arg His Thr Lys Thr Val Val Gln Leu Val Leu Ile Val  
35 40 45

Ile Leu Thr Phe Leu Leu  
50

<210> 103  
<211> 54  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 103

Val Phe Lys Trp Asn Val Asn Thr Lys Arg Tyr Tyr Tyr Ile Ala Met  
1 5 10 15

Arg Leu Lys Asp Ile Phe His Ile Lys Ser Gln Cys Leu Lys Ile Tyr  
20 25 30

Met Thr Leu Lys Leu Tyr Ile His Ile Met Asn Ile Thr Cys Ser Leu  
35 40 45

Lys Asn Thr Arg Ile Ser  
50

<210> 104  
<211> 53  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 104

Val Asn Lys Thr Pro Asn Asp Thr Arg Ile Cys Ser Val Ile Ser Met  
1 5 10 15

Ile Ser Val Ile Lys Asn Ala Lys Arg Lys Thr Met Ala Met Phe Asn  
20 25 30

Glu Ile Pro Val Ile Ile Ser Thr Asn Ile Asn Thr Asn Lys Lys  
35 40 45

<210> 97  
<211> 59  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 97

Met Arg Thr Pro Pro Lys Glu Tyr Gln His Cys Asn Tyr Tyr Leu Phe  
1 5 10 15

Phe His Ser Ile Gly Ala Leu Val Asn Asn Asn Val Cys Leu Ala Ser  
20 25 30

Tyr Asn Gln Ser Ile Arg Asn His Leu Ile Asn Lys Leu Arg Tyr Met  
35 40 45

Val Tyr Asn Arg Leu Val Gly Thr Asn Ser His  
50 55

<210> 98  
<211> 58  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 98

Val Ser Met Tyr Ala Ser Cys Lys Ser Leu Ser Ser Asn Leu Lys Leu  
1 5 10 15

Thr Leu Leu Lys Ser Phe Lys Asn Lys Ser Phe Ser Cys Ser Phe Leu  
20 25 30

Ala Ser Leu Ser Phe Phe His Leu Ser Ile Ser Asp Val Cys Leu Thr  
35 40 45

Asn Val Ile Asn Leu His Ile Lys His Lys  
50 55

<210> 99  
<211> 58  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 99

Met Glu Arg Lys Tyr Lys Thr Val Leu Leu Tyr Cys Asp Glu Ile Lys  
1 5 10 15

Gly His Phe Pro His Gln Ile Ser Met Phe Glu Asp Leu Tyr Asp Ala  
20 25 30

Lys Val Val Tyr Ser Tyr Tyr Glu Tyr Asn Leu Phe Thr Lys Lys Tyr  
35 40 45

Ala Tyr Ile Ile Glu Tyr Ile Lys Glu Ile  
50 55

<210> 100

<211> 55

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 100

Met Asn Asn Leu Leu Asn Ile Ala Ile Val Phe Leu Leu Ala Phe Leu  
1 5 10 15

Ile Thr Leu Ile Ile Leu Met Thr Leu His Ile Arg Val Ser Phe Gly  
20 25 30

Val Leu Phe Thr Thr Leu Ile Ile Phe Tyr Ile Ile Phe Leu Met Val  
35 40 45

Ile Tyr Ala Leu Tyr Gly Gly  
50 55

<210> 101

<211> 54

<212> PRT

<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 101

Met Ile Val Tyr Ile Pro Asn Phe Ser Thr Lys Phe Ile Leu Phe Cys  
1 5 10 15

Ile Trp Tyr Asn Asp Asn Ile Cys His Lys Ser Ser Tyr Ile Ile His  
20 25 30

Asp Phe Asn Ile Phe Ile Ile Ser Phe Asp Ile Glu Glu Ile Thr Val  
35 40 45

Leu Ile Asp Val Ile Ser  
50

Arg Leu Phe Met Val Asn His Phe Pro Ile Ile Val Tyr Asp Phe Val  
35 40 45

Leu Ile Asn Asn His  
50

<210> 105  
<211> 50  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 105

Met Ile Leu Tyr Ser Ser Leu Leu Ser Ser Lys Arg Asn Lys Leu Lys  
1 5 10 15

Cys Glu Arg Asn Ala Gly Met Pro Tyr Asn Pro Phe Lys Thr Thr Leu  
20 25 30

Asp Asn Ile Thr Ser Ser Phe Glu Tyr Gly Cys Ser Leu Ile Ser Ser  
35 40 45

Val Met  
50

<210> 106  
<211> 49  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 106

Met Ala Cys Phe Ala Lys Ala Ser Ser Glu Leu Pro Leu Ser Pro Leu  
1 5 10 15

Leu Pro Leu Ser Asp Glu Ser Leu Gly Asp Pro Pro Leu Pro Ser Asn  
20 25 30

Leu Pro Pro Gln Ala Arg Ile Val Phe Ala Pro Ser Lys Asn Gly Leu  
35 40 45

Pro

<210> 107  
<211> 49  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 107

Met Pro Leu Phe Asn His Leu Tyr Gln Ile Cys Lys Lys His Phe Leu  
1 5 10 15

Ser Asn Ser Phe Lys Ile Phe Phe Leu Lys Ser Tyr Ala Leu Ser Ile  
20 25 30

Leu Ser Ile Lys Tyr Cys Leu Val Asn Cys Val Pro Phe Ala Leu Pro  
35 40 45

Phe

<210> 108  
<211> 48  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 108

Met Met Ile Leu Ile Ile Lys Thr Leu Lys Ser Ile Asn Thr Leu Tyr  
1 5 10 15

Ile Ile Tyr Lys Leu Lys Ile Ile Ile Leu Gln Cys Ile Asn Ile Leu  
20 25 30

Lys Lys Ser Ile Leu Tyr Ile Lys Lys Leu Val Asn Gln Ile Asp Gln  
35 40 45

<210> 109  
<211> 48  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 109

Met Gln His Leu Thr Asn Lys Phe Asn Thr Val Asn Asp Ile Ile Asn  
1 5 10 15

Tyr Tyr Lys Glu Gln Lys His Gly Lys Thr Lys Ser Phe Arg His Gly  
20 25 30

Lys Arg Leu Ser Lys Cys Cys Gln Ser Cys Gln Lys Lys Asn Pro Arg  
35 40 45

<210> 110  
<211> 48  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 110

Val Tyr Thr Ile Pro His Val Met Val Gln His Met Val Val His Tyr  
1 5 10 15

Ser Leu Gln Leu Lys Thr Asn His Leu Gln Lys Leu Leu Gln Gln His  
20 25 30

Leu Cys Asp Gln Tyr His Met Gln Leu Leu Val Ser Met Val Val Tyr  
35 40 45

<210> 111  
<211> 47  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 111

Met Ser Ile Ser Asn Val Asn Asn Ser Phe Ser Ile Ser Lys Ser Ser  
1 5 10 15

Tyr Cys Leu Ser Asn Ser Ile Tyr Thr Ser Pro Ile Phe Ile Phe Thr  
20 25 30

Ile His Phe Leu Leu Asp Glu Val Asn Phe Ser Asn Leu Ser Leu  
35 40 45

<210> 112  
<211> 47  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 112

Val Tyr Leu Leu His Tyr Leu Phe Asp Phe Asp Tyr Val Leu Arg Phe  
1 5 10 15

Asp Tyr Phe Arg Tyr Ser Ile Tyr Ser Gln Phe Tyr Arg Tyr Gln Ser  
20 25 30

Tyr Tyr Tyr Gln Arg Ile Val Thr Leu Tyr Tyr Gln His Gln Cys  
35 40 45

<210> 113  
<211> 46  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 113

Val Leu Tyr Leu Leu Met Met Tyr Leu Asn Leu Lys Ser Leu Leu Ala  
1 5 10 15

Thr Leu Lys Lys Leu Asn Gln Asn Gln Ile Tyr Met Arg Leu Phe Trp  
 20 25 30

Ile Leu Ile Gln Leu Asn Ile Asn Val Thr Gln Lys Val Cys  
35 40 45

<210> 114

<211> 45

<212> PRT

<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 114

Val Val Thr Gly His Met His Ser Tyr Gln Lys Asn Ile Lys Lys Gln  
1 5 10 15

Leu Val Tyr Leu Tyr Ser Lys Lys Asn Thr Tyr Thr Asn Gln Val Thr  
20 25 30

Tyr Phe Leu Lys Arg Val Met Gln Asp Asn Val Gln Asn  
35 40 45

<210> 115

<211> 45

<212> PRT

<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 115

Met	Ser	Ser	Thr	Phe	Ile	Ile	Ile	Ser	Leu	Leu	Ser	Lys	Lys	Arg	Lys
1				5				10				15			

Arg Tyr Thr Phe His Lys Ile Leu Tyr Ala Tyr Ser Ile Val Leu Leu  
20 25 30

Gly His His Gln Gln Tyr Lys Thr Ile Leu Ile Leu Val  
35 40 45

<210> 116  
<211> 45  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 116

Met His Asp Arg Arg Leu Leu Leu Ile Tyr Ser Phe Val Asn Leu Leu  
1 5 10 15  
  
Arg Val Met Leu Gln Ser Val His Thr His Gln Val Gly Arg Asn His  
20 25 30  
  
Ile Asn Tyr Gly Asn Val Phe His His Arg Arg Leu Ser  
35 40 45

<210> 117  
<211> 45  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 117

Met Arg Leu Val Thr Val Leu Gln His His Arg Asp Val Thr Arg Phe  
1 5 10 15  
  
Ser Phe His His Trp Ile Asp Val Leu Ile Arg Leu Leu Tyr His Asp  
20 25 30  
  
His Pro Val Gln Tyr Ala Cys Leu Lys Leu Ser His His  
35 40 45

<210> 118  
<211> 44  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 118

Met Leu Pro Ile Tyr Val Met Ile Cys Phe Ile Lys Lys Thr Trp Asn  
1 5 10 15  
  
Val Ile Thr Thr Ile Gln Ala Ile Tyr Ile Leu Thr Met Leu Thr Leu  
20 25 30  
  
Lys Ile Thr Trp Leu Ile Met Ile Asp Ile Tyr Ile  
35 40

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<210> 119  
<211> 42  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 119

Met Ala Pro Ser Lys Asn Cys Ser Arg Thr Lys Val Ser Lys Ser Thr  
1 5 10 15  
Leu Val Ser Lys Ala Phe Phe Gly Ile Pro Ala Glu Ala Ile Leu Ile  
20 25 30  
Phe Pro Phe Thr Ser Tyr Ala Tyr Phe Leu  
35 40

<210> 120  
<211> 42  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 120

Met Ile Ile His Leu Ser Tyr His Ile Lys Thr Val Leu Ile Ser His  
1 5 10 15  
Val Ile Thr Leu Lys Ser Leu Arg Val Phe Ala Phe Ile Gln Ile Gln  
20 25 30  
Lys Gln Asn Val Asn Arg Tyr Tyr Leu Leu  
35 40

<210> 121  
<211> 42  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 121

Met Asn Val Cys Lys Leu Phe Arg Cys Glu Phe Cys Lys Thr Phe His  
1 5 10 15  
Ser Ile Val Ile Gly Phe Thr Ile Ile His Ile Ile Ile Phe Ile Lys  
20 25 30  
Asn Arg Ile Ile Lys Ile Cys Phe Lys Leu  
35 40

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<210> 122  
<211> 42  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 122

Met	Arg	Thr	Leu	Leu	Thr	Leu	Ser	Met	Leu	Glu	Lys	Phe	Asn	Ser	Gln
1				5					10					15	

Phe Met Asn Met Lys Thr Lys Lys Val Lys Lys Val Thr Gln Ser Ile  
20 25 30

Leu Val Lys Tyr His Phe Asn Thr Ile Ser  
35 40

<210> 123

<211> 41

<212> PRT

<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 123

Met Arg Gly Gln Val Leu Thr Leu Met Val His Met Asp Phe Asn Val  
1 5 10 15

Trp Thr Tyr Gln Leu Leu Met Cys Ile Thr Leu Leu Thr Val Lys Phe  
20 25 30

Ala Cys Gly Val Met Leu Lys Thr Arg  
35 40

<210> 124

<211> 41

<212> PRT

<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 124

Val Cys Tyr Val Phe His Ser Arg Asn Arg Phe Val Ala Phe Leu Lys  
1 5 10 15

Lys Cys Phe Cys Lys Val Leu Met Tyr Ser Phe Tyr Ala Phe Val Ile  
20 25 30

Asn Cys Ile Tyr Leu Asn Trp Ile Ile  
35 40

<210> 125  
<211> 40  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 125

Met Ile Thr Met Asn Tyr Thr Ile Ser Leu Thr Val Thr Lys Thr Leu  
1 5 10 15  
  
Asn Val Ile Tyr Tyr Ser Leu His Leu Ser His His Val His Cys Ile  
20 25 30  
  
Thr Tyr Trp Phe Leu Ser Asn Thr  
35 40

<210> 126  
<211> 40  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 126

Met Ile Leu Val Met Leu Ile Leu Asn Leu Met Ile Lys Ile Tyr Lys  
1 5 10 15  
  
Arg Arg Thr Leu Thr His Gly Asn Ile Leu His Ile Cys Pro Ile Phe  
20 25 30  
  
Leu Lys Lys Glu Thr Tyr His Met  
35 40  
  
<210> 127  
<211> 39  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD  
  
<400> 127

Met Trp Phe Ile His Gln Val Lys Leu Lys Asn Thr Tyr Asn His Lys  
1 5 10 15  
  
Ala Ser Gln Asn Thr Met Lys Ile Gln Gln Val Thr Leu Met Lys His  
20 25 30  
  
Arg Ile Lys Met Leu His Leu  
35

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<210> 128  
<211> 39  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 128

Met Thr Gly Met Glu Ile Arg Cys Tyr Ser Thr Leu Val Arg Phe His  
1 5 10 15

Lys Lys Leu Val Leu Ser Tyr Val Gln Asn Gln Leu Leu Val Ile Ile  
20 25 30

Met Lys Phe Glu Tyr Ile Gln  
35

<210> 129  
<211> 38  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 129

Met Cys Leu Val Ile Ile Leu Leu Leu Val Phe Trp Leu Asn Asp Thr  
1 5 10 15

Arg Glu Val Val Lys Ile Pro Gln Cys Ile His Tyr His His Leu Ser  
20 25 30

Asn Glu Val Tyr Asn Leu  
35

<210> 130  
<211> 37  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 130

Val Ser Ile Thr Leu Gln Val Thr Lys Trp Asn Tyr Leu Glu Thr Arg  
1 5 10 15

Gln Lys Lys Leu Lys Lys Trp Val His Gly Tyr Val Cys Gln Val Val  
20 25 30

Thr Gln Ser Val Lys  
35

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<210> 131  
<211> 36  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 131

Met Tyr His His Met Leu His His Val Trp Tyr Cys Ile His Ser  
1 5 10 15

Leu Met Ala Tyr Gln Ile Met Leu Val Ile Ile Leu Tyr Ser Leu Val  
20 25 30

Val Leu Leu Asn  
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<210> 132  
<211> 36  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 132

Met His Ile Ser Tyr Asp Ser Val Gln Thr Ser Tyr Leu Ser Val Arg  
1 5 10 15

Phe Gln Tyr Pro Ile Tyr Leu Arg Leu Ser Gly Arg Ile Asn Trp Gly  
20 25 30

Ser Ile Arg Val  
35

<210> 133  
<211> 36  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 133

Met Asp Phe Val Thr Leu Asp Tyr Leu Asn Arg His Tyr Ala Lys Ile  
1 5 10 15

Leu His Gln Ile Leu Lys Leu Leu Leu Ile Val Pro Leu Thr Trp Gly  
20 25 30

Arg Cys His Val  
35

<210> 134  
<211> 36  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 134

Met Tyr His Phe His Phe Tyr Asn Met Cys Arg Ile Gly Phe Val Ser  
1 5 10 15  
Ile Phe Gln Met Tyr Leu Leu Leu Met Phe Leu Met Leu Cys Tyr Tyr  
20 25 30  
Tyr Leu Lys Ile  
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<210> 135  
<211> 35  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 135

Met Cys Phe Gly Val Leu Ile Lys Tyr Leu Leu Arg Leu Ser Phe Tyr  
1 5 10 15  
Phe Ser Ser Tyr Leu Asn Tyr Leu Leu Ser Ala Ile Ala Ile Cys Ser  
20 25 30  
Lys Ser Leu  
35

<210> 136  
<211> 34  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 136

Val Val Phe Ala Thr Gln Leu Thr Asn Leu Leu Ile Leu Ile Lys Lys  
1 5 10 15  
Gln Ile Thr Cys Thr Leu His Asn Pro Ile Leu Lys Asn Leu Lys Val  
20 25 30  
Phe Gly

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<210> 137  
<211> 34  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 137

Met Arg Leu Val Phe Phe Leu Ile Ile Leu Ala Trp Leu Val Leu Leu  
1 5 10 15

Lys Arg Val Val Asn Tyr His Cys His His Tyr Tyr His Cys Gln Thr  
20 25 30

Asn His

<210> 138  
<211> 33  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 138

Met Thr Ser Gln Ser Ile Asn Leu Cys Pro Lys Tyr Ile Thr Val His  
1 5 10 15

His Leu Leu Lys Cys His Leu Cys Leu Met Gln Met Thr Ile Ser Leu  
20 25 30

Ile

<210> 139  
<211> 33  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 139

Val Val Glu Asn Val Ser Ile Ile Tyr Met Val Ser Ser Asn Leu Val  
1 5 10 15

Ser Met Asn Thr Leu Lys His Tyr Ala Gln Glu Val His Lys Thr Ile  
20 25 30

Asn

<210> 140  
<211> 33  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 140

Met Ile Phe Phe Ile Leu Lys Val Thr Ser Val His Phe His Leu Thr  
1 5 10 15  
  
Thr Tyr Phe Gln Leu Asn Val Gln Tyr Ile Thr Asn Leu Ile Cys Ile  
20 25 30  
  
Tyr

<210> 141  
<211> 133  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 141

Met Thr Glu Phe Asp Glu Ile Val Lys Pro Asp Asp Lys Glu Glu Thr  
1 5 10 15  
  
Ser Glu Ser Thr Glu Glu Asn Leu Glu Ser Thr Glu Glu Thr Ser Glu  
20 25 30  
  
Ser Thr Glu Glu Ser Thr Glu Glu Ser Thr Glu Glu Ser Thr Glu Asp  
35 40 45  
  
Lys Thr Val Glu Thr Ile Glu Glu Asn Glu Asn Lys Leu Glu Pro  
50 55 60  
  
Thr Thr Thr Asp Glu Asp Ser Ser Lys Phe Asp Pro Val Val Leu Glu  
65 70 75 80  
  
Gln Arg Ile Ala Ser Leu Glu Gln Gln Val Thr Thr Phe Leu Ser Ser  
85 90 95  
  
Gln Met Gln Gln Pro Gln Gln Val Gln Gln Thr Gln Ser Asp Val Thr  
100 105 110  
  
Glu Ser Asn Lys Glu Asp Asn Asp Tyr Ser Asp Glu Glu Leu Val Asp  
115 120 125  
  
Lys Leu Asp Leu Asp  
130

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<210> 142  
<211> 100  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD

<400> 142

Met Val Asn Val Asp Asn Ala Pro Glu Glu Lys Gly Gln Ala Tyr Thr  
1 5 10 15

Glu Met Leu Gln Leu Phe Asn Lys Leu Ile Gln Trp Asn Pro Ala Tyr  
20 25 30

Thr Phe Asp Asn Ala Ile Asn Leu Leu Ser Ala Cys Gln Gln Leu Leu  
35 40 45

Leu Asn Tyr Asn Ser Ser Val Val Gln Phe Leu Asn Asp Glu Leu Asn  
50 55 60

Asn Glu Thr Lys Pro Glu Ser Ile Leu Ser Tyr Ile Ala Gly Asp Asp  
65 70 75 80

Pro Ile Glu Gln Trp Asn Met His Lys Gly Phe Tyr Glu Thr Tyr Asn  
85 90 95

Val Tyr Val Phe  
100

<210> 143  
<211> 65  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
<400> 143

Met Glu Asn Glu Thr Lys Asn Ile Glu Leu Lys His Val Phe Arg Phe  
1 5 10 15

Lys Asn Gly Ser Leu Cys Ile Ala Leu Phe Asp Arg Thr Glu Asn Glu  
20 25 30

Ile Ser Phe Tyr Asp Val Asp Ile Asp Glu Ile Glu Asp Leu Asn His  
35 40 45

Asn Ser Val Leu Arg Val Ile Ser Thr Leu Leu Gly Ser Asp Asn Asn  
50 55 60

Gly  
65

<210> 144  
<211> 60  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 144

Met Tyr Glu Gly Asn Asn Met Arg Ser Met Met Gly Thr Ser Tyr Glu  
1 5 10 15  
  
Asp Ser Arg Leu Asn Lys Arg Thr Glu Leu Asn Glu Asn Met Ser Ile  
20 25 30  
  
Asp Thr Asn Lys Ser Glu Asp Ser Tyr Gly Val Gln Ile His Ser Leu  
35 40 45  
  
Ser Lys Gln Ser Phe Thr Gly Asp Val Glu Glu Glu  
50 55 60

<210> 145  
<211> 49  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 145

Met Lys Thr Cys Gln Leu Ile Gln Ile Lys Val Lys Ile Val Met Val  
1 5 10 15  
  
Tyr Lys Phe Ile His Phe Gln Asn Asn His Leu Gln Val Thr Leu Arg  
20 25 30  
  
Arg Asn Asn Lys Leu Trp His Asn Asn Leu Gln Lys Met Lys Leu His  
35 40 45  
  
Phe

<210> 146  
<211> 43  
<212> PRT  
<213> *Staphylococcus aureus* Bacteriophage 44 AHJD  
  
<400> 146

Met Ile Val Leu Lys Val Asn Glu Phe Val His His Asn Tyr Leu His  
1 5 10 15  
  
Phe Tyr Leu Tyr Gln Leu Thr Cys Phe His Leu Ile Leu Phe Val Tyr  
20 25 30

Leu Ile Leu Asn Leu His Met Met Tyr Pro Ser  
35 40

<210> 147  
<211> 36  
<212> PRT  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 147

Met Phe Ser Phe Asn Ser Val Arg Leu Phe Asn Leu Glu Ser Ser Tyr  
1 5 10 15

Asp Val Pro Ile Ile Glu Arg Met Leu Phe Pro Ser Tyr Met Phe Lys  
20 25 30

Phe Leu Leu Ile  
35

<210> 148  
<211> 53  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 148  
gatcccggtc gaccaagctt tacccatacg acgtcccaga ctacgcccagc tga 53

<210> 149  
<211> 53  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 149  
agttcagct ggcgttagtct gggacgtcgt atggtaaag cttggtcgac cgg 53

<210> 150  
<211> 21  
<212> DNA  
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 150  
aattctcgag taaaataaca t 21

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<210> 151	
<211> 37	
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<213> Staphylococcus aureus Bacteriophage 44 AHJD	
<400> 151	
cgggatccgc ctcctttct caacagtcac ctgattt	37
<210> 152	
<211> 27	
<212> DNA	
<213> Staphylococcus aureus Bacteriophage 44 AHJD	
<400> 152	
cgggatccat gaggggttcc gaagacg	27
<210> 153	
<211> 24	
<212> DNA	
<213> Staphylococcus aureus Bacteriophage 44 AHJD	
<400> 153	
cccaagctta caatttggac ttcc	24
<210> 154	
<211> 27	
<212> DNA	
<213> Staphylococcus aureus Bacteriophage 44 AHJD	
<400> 154	
ccgctcgagc tccaaattcc aaaacag	27
<210> 155	
<211> 26	
<212> DNA	
<213> Staphylococcus aureus Bacteriophage 44 AHJD	
<400> 155	
cgggatccaa taagactcct ttttac	26

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<210> 156
<211> 10
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 156
gcgtcgaccg
10

<210> 157
<211> 20
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 157
tattatccaa aaccttgaaca
20

<210> 158
<211> 20
<212> DNA
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 158
cggtggata tccagtgatt
20

<210> 159
<211> 133
<212> PRT
<213> Staphylococcus aureus Bacteriophage 44 AHJD

<400> 159

Met Lys Ile Lys Val Lys Lys Glu Met Arg Leu Asp Glu Leu Ile Lys
1 5 10 15

Trp Ala Arg Glu Asn Pro Asp Leu Ser Gln Cys Lys Ile Phe Phe Ser
20 25 30

Thr Gly Phe Ser Asp Gly Phe Val Arg Phe His Pro Asn Thr Asn Lys
35 40 45

Cys Ser Thr Ser Ser Phe Ile Pro Ile Asp Ile Pro Phe Ile Val Asp
50 55 60

Ile Glu Lys Glu Val Thr Glu Glu Thr Lys Val Asp Arg Leu Ile Glu
65 70 75 80

Leu Phe Glu Ile Gln Glu Gly Asp Tyr Asn Ser Thr Leu Tyr Glu Asn
85 90 95

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